

REMARKS

In response to the above-identified Office Action, Applicants amend the application and seek reconsideration thereof. Applicants have not added or deleted any claims. Applicants amend claims 1, 2 and 17. Accordingly, claims 1-18 are pending.

I. Claims Rejected Under 35 U.S.C. § 112, second paragraph

Claims 6, 10, 17 and 18 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

In regard to claims 6 and 10, the Examiner objects to these claims for including the phrase "active ranging." Applicants believe "active ranging" is a term with a plain meaning encompassing ranging methods that utilize active methods of range finding such as intensity gradient ranging. MPEP § 2173.05(e) does not require that a term in a claim appear explicitly in the specification. See Section of MPEP § 2173.05(e) titled "A Claim Term Which Has No Antecedent Basis in the Disclosure Is Not Necessarily Indefinite." Intensity gradient ranging is one type of active ranging that is discussed at length throughout the specification. Thus, "active ranging" is not indefinite for lacking antecedent basis and is enabled by the discussion of intensity gradient ranging. Accordingly, reconsideration and withdrawal of the indefiniteness rejection of claims 6 and 10 are requested.

In regard to claim 17, the Examiner rejects this claim as being "incomplete for omitting essential structural cooperative relationships of elements." Applicants have amended claim 17 to clarify that the bearing is coupled to the housing to rotate the housing relative to the shaft. Claim 18 is rejected for depending from claim 17. Accordingly, reconsideration and withdrawal of the indefiniteness rejection of the claims 17 and 18 are requested.

II. Claims Rejected Under 35 U.S.C. § 103

Claims 1, 2, 5, 6, 8-10, 15 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,747,822 issued to Sinclair, et al. (hereinafter "Sinclair").

To establish a *prima facie* case of obviousness, the Examiner must show that the cited reference teaches or suggests each of the elements of a claim. In regard to claim 1, this claim includes the elements of "creating a second three-dimensional representation by an alternative method." The Examiner has not indicated and Applicants have been unable to discern any part of Sinclair that teaches or suggests creating a second three-dimensional representation of an object by an alternative method. Rather, Sinclair teaches a single method for generating a single three-dimensional representation of an object. Sinclair teaches using multiple cameras to capture the contours of an object that is rotated and compiling these contours into a digital model of the object. See Sinclair, col. 2, line 50 - col. 3, line 2. Applicants have been unable to discern any part of Sinclair and the Examiner has not indicated any part of Sinclair that teaches an alternative method of generating a three-dimensional representation of an object. Therefore, the Examiner has failed to establish that Sinclair teaches or suggests each of the elements of claim 1. Accordingly, reconsideration and withdrawal of the obviousness rejection of claim 1 are requested.

In regard to claim 2, this claim depends from independent claim 1 and incorporates the limitations thereof. Thus, at least for the reasons mentioned in regard to independent claim 1, this claim is not obvious over Sinclair. Accordingly, reconsideration and withdrawal of the obviousness rejection of claim 2 are requested.

In regard to claim 5, this claim includes the elements of "combining elements from a first and second three-dimensional representation." The Examiner has not indicated and Applicants have been unable to discern any part of Sinclair that teaches or suggests combining elements from a first and second three-dimensional representation. Rather, as discussed above in regard to independent claim 1, Sinclair teaches generating a single three-dimensional representation of an object based on multiple two-dimensional images of the object. The Examiner argues that the claim language "to improve quality" does not set forth any steps for manipulative differences in the prior art so as to distinguish the instant claim from the prior art. However, the Examiner has failed to read the language of claim 5 as a whole. Claim 5 clearly sets forth an operation where elements from a first and second three-dimensional representation are combined with a result of a three-

dimensional representation that has an improved quality. Thus, this limitation would distinguish the claim from any references that do not teach or suggest combining a first and second representation of a three-dimensional representation or any references that do not teach or suggest a combination of a first and second three-dimensional representation to produce a representation with improved quality over the first and second representations. Thus, Sinclair does not teach or suggest each of the elements of claim 5. Therefore, the Examiner has failed to establish a *prima facie* case of obviousness for independent claim 5. Accordingly, reconsideration and withdrawal of the obviousness rejection of claim 5 are requested.

In regard to claim 6, this claim depends from independent claim 5 and incorporates the limitations thereof. Thus, at least for the reasons mentioned in regard to independent claim 5, this claim is not obvious over Sinclair. Accordingly, reconsideration and withdrawal of the obviousness rejection of claim 6 are requested.

In regard to claim 8, this claim includes the elements of a "digitizer capable of using any of at least two capture methods to capture a three-dimensional representation of at least a portion of an object." As discussed above in regard to claims 1 and 5, Sinclair does not teach a digitizer that is capable of performing multiple methods of generating a three-dimensional representation of an object. Rather, Sinclair teaches a system that is capable of only a single method of generating a three-dimensional representation of an object. The language of claim 8 describes the structural characteristics of the digitizer to distinguish the digitizer structurally from other digitizers that are not capable of supporting two methods of generating a three dimensional object. Thus, claim 8 claims a digitizer that is structurally distinguished from Sinclair in accordance with MPEP § 2114. Therefore, the Examiner has failed to establish a *prima facie* case of obviousness for claim 8. Accordingly, reconsideration and withdrawal of the obviousness rejection of claim 8 are requested.

In regard to claims 9, 10, 15 and 16, these claims depend from independent claim 8 and incorporate the limitations thereof. Thus, at least for the reasons mentioned above in regard to claim 8, these claims are not obvious over Sinclair. Accordingly, reconsideration and withdrawal of the obviousness rejection of claim 9, 10, 15 and 16 are requested.

Claims 3 and 4 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Sinclair in view of U.S. Patent No. 5,101,442 issued to Amir (hereinafter "Amir").

Claims 3 and 4 depend from independent claim 1 and incorporate the limitations thereof. Thus, at least for the reasons mentioned above in regard to independent claim 1, Sinclair does not teach or suggest each of the elements of claims 3 and 4. Further, Amir does not cure the defects of Sinclair. The Examiner has not indicated and Applicants have been unable to discern any part of Amir that teaches or suggests creating a second three-dimensional representation of an object using an alternative capture method from that employed to create a first representation. Further, the Examiner has failed to establish that either Amir or Sinclair teaches the desirability of the proposed combination. The Examiner justifies the combination of Amir and Sinclair stating "the motivation for combining the references would have been to provide for alternative two-dimensional detector arrangements, as found in the Amir reference." Amir and Sinclair each teach a single method for generating three-dimensional representations of objects. However, the Examiner has not indicated and Applicants have not been able to discern any part of either Amir or Sinclair that teaches or suggests the desirability of using alternate means to generate a three-dimensional representation of single object. See MPEP § 2143.01 "The Prior Art Must Suggest the Desirability of the Claimed Invention." Rather, each reference teaches an independent method for scanning the object without the need for an alternative method. Therefore, the Examiner has failed to establish a *prima facie* case of obviousness for claims 3 and 4. Accordingly, reconsideration and withdrawal of the obviousness rejection of claims 3 and 4 are requested.

Claim 12 stands rejected under 35 U.S.C. 103 as being unpatentable over Sinclair in view of U.S. Patent No. 5,614,981 issued to Bryant, et al. (hereinafter "Bryant").

Claim 12 depends from independent claim 8 and incorporates the limitations thereof. Thus, at least for the reasons mentioned above in regard to independent claim 8, Sinclair does not teach or suggest each of the elements of claim 12. Further, Bryant does not cure the defects of Sinclair. The Examiner has not indicated and Applicants have been unable to discern any part of Bryant that teaches or suggests a process to combine elements from three-dimensional representations that

have been captured using at least two capture methods to improve the quality of a resultant three-dimensional representation. Therefore, Sinclair in view of Bryant does not teach or suggest each of the elements of claim 12. Accordingly, reconsideration and withdrawal of the obviousness rejection of claim 12 are requested.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending, namely claims 1-18 patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207 3800.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Non-Fee Amendments, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 8, 2004.

Lillian E. Rodriguez 6-8-04
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